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10/618,118	07/11/2003	Pierluigi Pugliese	Pugliese31	4099

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EXAMINER	
HICKS, MICHAEL J	

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/618,118	Applicant(s) PUGLIESE, PIERLUIGI	
	Examiner Michael J. Hicks	Art Unit 2165	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 22-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 22-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Claims 22-41 Pending.

Claims 1-21 Canceled.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 22-41 rejected under 35 U.S.C. 102(b) as being anticipated by Sears et

al. ("Split Menus: Effectively Using Selection Frequency to Organize Menus", ACM Transactions on Computer-Human Interaction, Vol. 1, No. 1, March 1994 Pages 27-51 and referred to hereinafter as Sears).

As per Claims 22, 34, and 38, Sears discloses a processor-implemented method, device, and machine readable storage medium for rearranging a plurality of menu items within a menu structure of a user interface, the method comprising the steps of collecting data about respective selection rates of the menu items within a current menu structure (i.e. *"Tables II-IV describe how frequently each menu item was selected for each of the three menu organizations for Distributions One, Two, and Three respectively."* The preceding text excerpt along with tables II-IV clearly indicate that data is collected about the frequency of menu selection (e.g. a tracking of the number of times each menu item is selected) prior to adapting the menu structure (e.g. this data would have to be collected in order to determine the frequency of menu items, which is needed to

perform the frequency re-ordering from a default configuration, such as shown in Figure 1).) (Page 32, Figure 1; Page 38, Paragraph 3; Page 39, Figures II-IV); calculating a new menu structure based on the collected data about the respective selection rates of the menu items within the current menu structure (i.e. *"Tables II-IV describe how frequently each menu item was selected for each of the three menu organizations for Distributions One, Two, and Three respectively."* The preceding text excerpt along with tables II-IV clearly indicate that data is collected about the frequency of menu selection (e.g. a tracking of the number of times each menu item is selected) prior to adapting the menu structure (e.g. this data would have to be collected in order to determine the frequency of menu items, which is needed to perform the frequency re-ordering from a default configuration, such as shown in Figure 1).) (Page 32, Figure 1; Page 38, Paragraph 3; Page 39, Figures II-IV); and replacing the current menu structure with the new menu structure (i.e. *"Several researchers have suggested organizing menu items by how frequently they are selected."* The preceding text excerpt clearly indicates that menu structure (e.g. the organization of the menu items) may be rearranged based/dependent on how frequently they are selected (e.g. the respective selection rates of the menu items).) (Page 28, Paragraph 3); wherein user approval of menu alteration is obtained prior to completion of the replacing step (i.e. *"Tables II-IV describe how frequently each menu item was selected for each of the three menu organizations for Distributions One, Two, and Three respectively."* The preceding text excerpt along with tables II-IV clearly indicate that data is collected about the frequency of menu selection (e.g. a tracking of the number of times each menu item is selected) prior to adapting the menu structure (e.g. this data would have to be collected in order to determine the frequency of menu items, which is needed to perform the frequency re-ordering from a default configuration, such as shown in Figure 1). Note that there must be a menu selection which triggers the reordering of the menus. As user approval may be defined as a user selection of a menu item, as in Claim 26, this final selection before the reordering may be construed as the user approval. Note that this selection takes place before the

completion of the replacing step, the collecting step (as the data for the initiating click has not yet been recorded), or the calculating step) (Page 32, Figure 1; Page 38, Paragraph 3; Page 39, Figures II-IV).

As per Claims 23, 35, and 39, Sears discloses the user approval is obtained prior to completion of the collecting step (i.e. *"Tables II-IV describe how frequently each menu item was selected for each of the three menu organizations for Distributions One, Two, and Three respectively."*) The preceding text excerpt along with tables II-IV clearly indicate that data is collected about the frequency of menu selection (e.g. a tracking of the number of times each menu item is selected) prior to adapting the menu structure (e.g. this data would have to be collected in order to determine the frequency of menu items, which is needed to perform the frequency re-ordering from a default configuration, such as shown in Figure 1). Note that there must be a menu selection which triggers the reordering of the menus. As user approval may be defined as a user selection of a menu item, as in Claim 26, this final selection before the reordering may be construed as the user approval. Note that this selection takes place before the completion of the replacing step, the collecting step (as the data for the initiating click has not yet been recorded), or the calculating step) (Page 32, Figure 1; Page 38, Paragraph 3; Page 39, Figures II-IV).

As per Claims 24, 36, and 40, Sears discloses the user approval is obtained prior to completion of the calculating step (i.e. *"Tables II-IV describe how frequently each menu item was selected for each of the three menu organizations for Distributions One, Two, and Three respectively."*) The preceding text excerpt along with tables II-IV clearly indicate that data is collected about the frequency of menu selection (e.g. a tracking of the number of times each menu item is selected) prior to adapting the menu structure (e.g. this data would have to be collected in order to determine the frequency of menu items, which is needed to perform the frequency re-ordering from a default configuration, such as shown in Figure 1). Note that there must be a menu selection which

triggers the reordering of the menus. As user approval may be defined as a user selection of a menu item, as in Claim 26, this final selection before the reordering may be construed as the user approval. Note that this selection takes place before the completion of the replacing step, the collecting step (as the data for the initiating click has not yet been recorded), or the calculating step) (Page 32, Figure 1; Page 38, Paragraph 3; Page 39, Figures II-IV).

As per Claims 25, 37, and 41, Sears discloses displaying the new menu structure to the user (i.e. Note that after the menu has been reordered, the new menu structure will be displayed to the user the next time the user accesses the menu.; and obtaining user approval of the new menu structure as displayed (i.e. As user approval may be defined as a user selection of a menu item, as in Claim 26, user approval will be attained at the point when the user selects a menu item from the new menu structure.)).

As per Claim 26, Sears discloses the user approval comprises the selection of a menu item (i.e. *"Tables II-IV describe how frequently each menu item was selected for each of the three menu organizations for Distributions One, Two, and Three respectively."* The preceding text excerpt along with tables II-IV clearly indicate that data is collected about the frequency of menu selection (e.g. a tracking of the number of times each menu item is selected) prior to adapting the menu structure (e.g. this data would have to be collected in order to determine the frequency of menu items, which is needed to perform the frequency re-ordering from a default configuration, such as shown in Figure 1). Note that there must be a menu selection which triggers the reordering of the menus. As user approval may be defined as a user selection of a menu item, as in Claim 26, this final selection before the reordering may be construed as the user approval. Note that this selection takes place before the completion of the replacing step, the collecting step (as the data for the initiating click has not yet been recorded), or the calculating step) (Page 32, Figure 1; Page 38, Paragraph 3; Page 39, Figures II-IV).

As per Claim 27, Sears discloses the menu items are arranged within a plurality of functional groupings within the current menu structure (i.e. *"Split menus are created by splitting a menu into two sections. Designers or individual users place frequently selected items in the top section and infrequently selected items in the bottom section. Split menus should prove useful when a small subset of the menu items represent the majority of selections. By moving these frequently used items to the top of the menu, users should be able to locate and select them more rapidly. As the length of the menu increases, the potential benefits of split menus also increase."* The preceding text excerpt clearly indicates that the split menus are arranged into a plurality of functional groupings (e.g. high frequency selections and low frequency selections).) (Page 28, Paragraph 5) and wherein the new menu structure comprises rearrangement of particular ones of the menu items within at least a given one of the functional groupings while maintaining said plurality of functional groupings of the menu items (i.e. *"Frequency based orderings typically refer to placing the most frequently used item at the top of the of the menu, followed by the next most frequently used item. This continues until all items are places in the menu."* The preceding text excerpt clearly indicates that if the respective selection rate (e.g. frequency of selection) of a particular menu item were to change, that it may cause a move in its position. For example, if a menu item were to change from being the second most selected item to them most selected item in the menu, it would be moved to the top of the menu. Note that the menu items, before any frequency data is collected, will appear in some prearranged order by default (for example, an alphabetical ordering as shown in Figure 1), and that once frequency data is collected the menu will begin to be rearranged. Also note that, as shown in Figure 1, all menu items are arranged into one logical area, in which they are then rearranged. Note that his behavior will not eliminate the split menu (e.g. the functional groupings.) (Page 29, Paragraph 4; Page 32, Figure 1).

As per Claim 28, Sears discloses the functional groupings comprise submenus (Note that the split menu may be considered a submenu as it contains information which is a part of the complete menu structure.).

As per Claim 29, Sears discloses calculating a difference between the new menu structure and the current menu structure (i.e. *"We developed preliminary guidelines which help decide which items should be placed in the high frequency section of a split menu...2. Sort all items by selection frequency. Starting with the least frequently selected items, scan until the increase in frequency between two successive items is greater than the mean of the frequencies. Once this point is located, all items on the high frequency side of this point are placed in the high frequency section. If there are more than four items, only the four most frequently selected items are placed in the high-frequency section."*) The preceding text excerpt clearly indicates a threshold is established/defined which represents how the menu is to be arranged and when a new menu item which is not in the high frequency section reaches this threshold, a new menu defined to replace the current menu structure, the first step of which includes following the proposal steps/preliminary guidelines.) (Page 31, Paragraph 2-4).

As per Claim 30, Sears discloses the difference is a number of menu items in the new menu structure that have no corresponding match in the current menu structure (i.e. *"Tables II-IV describe how frequently each menu item was selected for each of the three menu organizations for Distributions One, Two, and Three respectively."*) The preceding text excerpt along with tables II-IV clearly indicate that data is collected/monitored about the frequency of menu selection (e.g. a tracking of the number of times each menu item is selected). A count is assigned each time a menu item is selected, including those not in the high-frequency section. The threshold, as disclosed above, would only be reached if the count of a menu item which was not in the high frequency section exceeded the count of a menu item which was in the high frequency section. If the menu structure is taken to be the



high frequency section (because in this case, only the positions of menu items in the high frequency section is altered by selection frequency) then by counting one for every selection of a menu item not in the menu structure (i.e. not in the high frequency section) the threshold can be reached if the count of a menu item which is not in the menu structure exceeds the count of a menu item which is in the menu structure (i.e. in the high frequency section.) (Page 32, Figure 1; Page 38, Paragraph 3; Page 39, Figures II-IV).

As per Claim 31, Sears discloses the replacing step is executed only if the calculated difference exceeds a threshold (i.e. *"We developed preliminary guidelines which help decide which items should be placed in the high frequency section of a split menu...2. Sort all items by selection frequency. Starting with the least frequently selected items, scan until the increase in frequency between two successive items is greater than the mean of the frequencies. Once this point is located, all items on the high frequency side of this point are placed in the high frequency section. If there are more than four items, only the four most frequently selected items are placed in the high-frequency section."*) The preceding text excerpt clearly indicates a threshold is established/defined which represents how the menu is to be arranged and when a new menu item which is not in the high frequency section reaches this threshold, a new menu defined to replace the current menu structure, the first step of which includes following the proposal steps/preliminary guidelines.) (Page 31, Paragraph 2-4).

As per Claim 32, Sears discloses the threshold is predefined (i.e. *"We developed preliminary guidelines which help decide which items should be placed in the high frequency section of a split menu..."*) The preceding text excerpt clearly indicates that the thresholds are predefined, and also that the thresholds were defined by a user.) (Page 31, Paragraph 2).

As per Claim 33, Sears discloses the threshold is selected by the user (i.e. "We developed preliminary guidelines which help decide which items should be placed in the high frequency section of a split menu..." The preceding text excerpt clearly indicates that the thresholds are predefined, and also that the thresholds were defined by a user.) (Page 31, Paragraph 2).

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


#### ***Points of Contact***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Hicks whose telephone number is (571) 272-2670. The examiner can normally be reached on Monday - Friday 10:00a - 7:00p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin can be reached on (571) 272-4146. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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